# Notation

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Let $K > 0 \in \mathbb{R}$ be a caliper. Then, let schools be indexed $i = 1, ..., S$ and for each school $i$, students be indexed $j = 1, ..., N_i$. Let $N = \sum_{i=1}^{S} N_i$. Treatment is assigned at the school-level, so let $T_i \in \{0, 1\}$ indicate whether a school received treatment or not. Then, let $Y_{ij} \in \mathbb{R}$ be the outcome for student $(i, j)$ and $\hat{Y}_{ij} \in \mathbb{R}$ be the estimated prognostic score for student $(i, j)$. Let $T \subset [S]$ be the set of treatment schools and $C = [S] \setminus T$ be the set of control schools. Let $S_{ij}$ be the school that student $(i, j)$ attends. All future data products are functions of these objects.

There are four final data products:

1. $(\ell_M, u_M)$: the confidence interval from the treatment effect estimation derived using the matchAhead procedure.
2. $(\ell_P, u_P)$: the confidence interval from the treatment effect estimation derived using the Pimentel procedure.
3. $\{E_{ij}^{(M)}\}_{T \times C}$ the set of times elapsed when matching treatment to control schools using the using the matchAhead procedure.
4. $\{E_{ij}^{(P)}\}_{T \times C}$ the set of times elapsed when matching treatment to control schools using the using the Pimentel procedure.